

REMARKS

Claims 146, 182 and 192 have been amended. Support for the amendments is found throughout the application, for example, at page 19, line 16 through page 20, line 27, and Figure 15. The amended claims are supported by the application as filed. This Amendment adds no new matter.

Paragraph 9. Rejection of Claims 146, 148-153, 155-161, 182, 183, 185-193, 195-201, 217, 218 and 229-232 Under 35 U.S.C. § 112, First Paragraph

Claims 146, 148-153, 155-161, 182, 183, 185-193, 195-201, 217, 218 and 229-232 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which is not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner states that the claims are drawn to an antibody that binds any member of a genus of proteins related to SEQ ID NO:2 by 90% or greater amino acid sequence similarity and conserved structure sufficient for TECK binding. (Office Action at page 3, lines 15-17.) The Examiner suggests that adequate written description be provided by amending the claims to recite that the antibody or antigen-binding fragment bind the polypeptide set forth in SEQ ID NO:2. (Office Action at page 3, lines 40-41.)

Claim 146 has been amended as the Examiner suggests, thereby obviating the rejection with respect to Claim 146 and dependent Claims 148-153, 155-161, 217 and 218.

The written description requirement is satisfied when the specification describes the claimed invention in sufficient detail so that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. Vas-Cath, Inc. v. Mahurkar, 19 USPQ2d 1111 (Fed. Cir. 1991).

As amended, Claim 182 recites that the antibody or antigen-binding fragment has the “epitopic specificity of mAb 3C3 (ATCC Accession No. HB-12653) and inhibits binding of TECK to a GPR-9-6 that binds TECK and comprises an amino acid sequence that is at least about 90% similar to the amino acid sequence of SEQ ID NO:2.” Similarly, amended Claim 192

recites that the antibody or antigen-binding fragment has the “epitopic specificity of mAb GPR96-1 (ATCC Accession No. PTA-1470) and inhibits binding of TECK to a GPR-9-6 that binds TECK and comprises an amino acid sequence that is at least about 90% similar to the amino acid sequence of SEQ ID NO:2.” The specification contains a description of the subject matter of these claims that is sufficiently detailed so that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention.

Further amendment of Claims 182 and 192 to include the amendment suggested by the Examiner is not necessary to satisfy the written description requirement. For example, the specification teaches that both mAb 3C3 and mAb GPR96-1 bind human GPR-9-6 and inhibit binding of TECK to the receptor. (See, *e.g.*, specification at page 19, line 16 through page 20, line 27; and Figure 18.) In addition, Applicants have provided further description of the antibody and antigen-binding fragment recited in the claims by depositing hybridomas that produce mAb 3C3 and mAb GPR96-1 under the Budapest Treaty, and disclosing methods that are suitable for identifying antibodies or antigen-binding fragments of antibodies that have the epitopic specificity of mAb 3C3 and mAb GPR96-1. (See, *e.g.*, specification at page 19, line 16 through page 20, line 27.) The amended claims recite that the antibody or antigen-binding fragment has the epitopic specificity of mAb 3C3 or mAb GPR96-1. Thus, the genus of antibodies encompassed by Claim 183 or Claim 192 is described in a manner that is sufficient to reasonably convey to the person of ordinary skill in the art at the time the application was filed, that the Applicants were in possession of the subject matter of Claims 182, 183, 185-193, 195-201 and 229-232.

Reconsideration and withdrawal of the rejection of Claims 182, 183, 185-193, 195-201 and 229-232 is requested.

Paragraph 10. Rejection of Claims 182-201 and 229-232 Under 35 U.S.C. § 112, First Paragraph

Claims 182-201 and 229-232 are rejected under 35 U.S.C. § 112, first paragraph, as lacking enablement. The Examiner states that the specification does not reasonably enable a method of inhibiting function of GPR-9-6 by contacting a cell with an antibody that does not necessarily inhibit binding of the ligand TECK. (Office Action at page 4, lines 1-5.) The Examiner suggest that the claims be amended to indicate that the antibody or antigen-binding fragment inhibits binding of TECK. (Office Action at page 4, lines 26-27.)

Independent Claims 182 and 192 have been amended as suggested by the Examiner, thereby obviating the rejection of these claims and dependent Claims 183-191, 193-201 and 229-232.

Paragraph 13. Rejection of Claims 151, 152, 172-180, 192-200, 221 and 224-226 Under 35 U.S.C. § 102(a)

Claims 151, 152, 172-180, 192-200, 221 and 224-226 are rejected under 35 U.S.C. § 102(a) as being anticipated by Zabel *et al.* (Reference AR3 of record.) The Examiner states that Zabel *et al.* do not teach that antibody GPR96-1 recognizes GPR-9-6, that antibody GPR96-1 has the epitopic specificity of mAb 3C3 or that antibody GPR96-1 inhibits binding of mAb 3C3 to GPR-9-6. However, the Examiner believes that these properties are inherent in the GPR-9-6 protein and in the 3C3 antibody.

Applicants disagree with the Examiner's conclusions, because there is no scientific basis to conclude that the properties of mAb GPR96-1 are inherent in mAb 3C3 and the GPR-9-6 protein.

Zabel *et al.* was published in the *Journal of Experimental Medicine*, volume 190, number 9, which bears a cover date of November 1, 1999. Filed herewith is a copy of a Declaration Under 37 C.F.R. § 1.131 with Exhibit (3 documents). The Declaration presents evidence that the inventors produced mAb GPR96-1 and were in possession of the claimed invention before the effective date of Zabel *et al.* Therefore, Zabel *et al.* is not available as prior art under 35 U.S.C. § 102(a).

Paragraph 15. Rejection of Claims 151, 152, 172-181, 192-201, 221 and 224-226 Under 35 U.S.C. § 103(a)

Claims 151, 152, 172-181, 192-201, 221 and 224-226 are rejected under 35 U.S.C. § 103(a) as being obvious over Zaballos *et al.* (Reference AX2 of record) in view of Chuntharapai *et al.* (Reference AY2 of record).

Zaballos *et al.* was published in *The Journal of Immunology*, volume 162, number 10, which bears a cover date of May 15, 1999. Information downloaded from *The Journal of Immunology* web site indicates that this volume of the journal was posted on-line on May 11, 1999. (Copy provided as Exhibit A) As discussed above, the copy of the Declaration Under 37

C.F.R. § 1.131 filed herewith presents evidence that the inventors produced mAb GPR96-1 and were in possession of the claimed invention prior to the effective date of Zaballos *et al.* Therefore, Zaballos *et al.* is not available as prior art under 35 U.S.C. § 102 and cannot be used in a rejection under § 103.

Paragraph 16. Rejection of Claims 227, 228, 231 and 232 Under 35 U.S.C. § 103(a)

Claims 227, 228, 231 and 232 are rejected under 35 U.S.C. § 103(a) as being obvious over Zaballos *et al.* (Reference AX2 of record) in view of Chuntharapai *et al.* (Reference AY2 of record) and in further view of Chuntharapai *et al.* (U.S. Patent No. 5,440,021).

As discussed above, the copy of the Declaration Under 37 C.F.R. § 1.131 filed herewith presents evidence that the inventors produced mAb GPR96-1 and were in possession of the claimed invention prior to the effective date of Zaballos *et al.* Therefore, Zaballos *et al.* is not available as prior art under 35 U.S.C. § 102 and cannot be used in a rejection under § 103.

Paragraph 17. Rejection of Claims 181, 201, 227, 228, 231 and 232 Under 35 U.S.C. § 103(a)

Claims 181, 201, 227, 228, 231 and 232 are rejected under 35 U.S.C. § 103(a) as being obvious over Zabel *et al.* (Reference AR3 of record) in view of Chuntharapai *et al.* (U.S. Patent No. 5,440,021).

As discussed above, the copy of the Declaration Under 37 C.F.R. § 1.131 filed herewith presents evidence that the inventors produced mAb GPR96-1 and were in possession of the claimed invention before the effective date of Zabel *et al.* Therefore, Zabel *et al.* is not available as prior art under 35 U.S.C. § 102 and cannot be used in a rejection under § 103.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Dated: *March 5, 2004*